PATENT COOPERATION TREATY

From the
INTERNATIONAL SEARCHING AUTHORITY

To:

see form PCT/ISA/220

PCT

WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY

(PCT Rule 43*bis*.1)

Date of mailing
(day/month/year) see form PCT/ISA/210 (second sheet)

Applicant's or agent's file reference
see form PCT/ISA/220

FOR FURTHER ACTION
See paragraph 2 below

International application No.	International filing date *(day/month/year)*	Priority date *(day/month/year)*
PCT/JP2004/019479	20.12.2004	15.01.2004

International Patent Classification (IPC) or both national classification and IPC
G11B20/00

Applicant
MATSUSHITA ELECTRIC INDUSTRIAL CO., LTD.

1. This opinion contains indications relating to the following items:

- ☒ Box No. I Basis of the opinion
- ☒ Box No. II Priority
- ☐ Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- ☒ Box No. IV Lack of unity of invention
- ☒ Box No. V Reasoned statement under Rule 43*bis*.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- ☐ Box No. VI Certain documents cited
- ☐ Box No. VII Certain defects in the international application
- ☐ Box No. VIII Certain observations on the international application

2. **FURTHER ACTION**

If a demand for international preliminary examination is made, this opinion will usually be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA"). However, this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notifed the International Bureau under Rule 66.1*bis*(b) that written opinions of this International Searching Authority will not be so considered.

If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of three months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later.

For further options, see Form PCT/ISA/220.

3. For further details, see notes to Form PCT/ISA/220.

Name and mailing address of the ISA:

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ATTACHMENT G

WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY

International application No.
PCT/JP2004/019479

Box No. I Basis of the opinion

1. With regard to the **language**, this opinion has been established on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.

   ☐ This opinion has been established on the basis of a translation from the original language into the following language , which is the language of a translation furnished for the purposes of international search (under Rules 12.3 and 23.1(b)).

2. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application and necessary to the claimed invention, this opinion has been established on the basis of:

   a. type of material:

   ☐ a sequence listing

   ☐ table(s) related to the sequence listing

   b. format of material:

   ☐ in written format

   ☐ in computer readable form

   c. time of filing/furnishing:

   ☐ contained in the international application as filed.

   ☐ filed together with the international application in computer readable form.

   ☐ furnished subsequently to this Authority for the purposes of search.

3. ☐ In addition, in the case that more than one version or copy of a sequence listing and/or table relating thereto has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.

4. Additional comments:

Box No. II Priority

1. ☒ The validity of the priority claim has not been considered because the International Searching Authority does not have in its possession a copy of the earlier application whose priority has been claimed or, where required, a translation of that earlier application. This opinion has nevertheless been established on the assumption that the relevant date (Rules 43*bis*.1 and 64.1) is the claimed priority date.

2. ☐ This opinion has been established as if no priority had been claimed due to the fact that the priority claim has been found invalid (Rules 43*bis*.1 and 64.1). Thus for the purposes of this opinion, the international filing date indicated above is considered to be the relevant date.

3. Additional observations, if necessary:

Box No. IV Lack of unity of invention

1. ☐ In response to the invitation (Form PCT/ISA/206) to pay additional fees, the applicant has:

   ☐ paid additional fees.

   ☐ paid additional fees under protest.

   ☐ not paid additional fees.

2. ☒ This Authority found that the requirement of unity of invention is not complied with and chose not to invite the applicant to pay additional fees.

3. This Authority considers that the requirement of unity of invention in accordance with Rule 13.1, 13.2 and 13.3 is

   ☐ complied with

   ☒ not complied with for the following reasons:

   see separate sheet

4. Consequently, this report has been established in respect of the following parts of the international application:

   ☒ all parts.

   ☐ the parts relating to claims Nos.

Box No. V Reasoned statement under Rule 43*bis*.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Yes:	Claims	
	No:	Claims	1,14,15,16
Inventive step (IS)	Yes:	Claims	
	No:	Claims	2-13
Industrial applicability (IA)	Yes:	Claims	1-16
	No:	Claims	

2. Citations and explanations

   see separate sheet

WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY (SEPARATE SHEET)

International application No.
PCT/JP2004/019479

1. Reference is made to the following documents:

D1: US2003/0081792
D2: Liu Jianwei, Wang Yumin, "A user authentication protocol for digital mobile communication network", 27.9.1995, XP010150958

2. The present application does not meet the criteria of Article 33(1) PCT, because the subject-matter of claims 1, 14, 15 and 16 is not new in the sense of Article 33(2) PCT.

2.1 D1 discloses:
A content reproduction apparatus which reproduces digital contents, comprising:
a secret information storage unit operable to hold secret information specific to the content reproduction apparatus in a manner which does not allow access from outside the content reproduction apparatus (paragraph 94 + 234, 235);
an index information storage unit operable to hold index information which is in a one-to-one association with the secret information (paragraph 94, 'index information' is construed as 'device key identification information', Figure 3);
an instruction receiving unit operable to receive an instruction to output the index information; and
an index information output unit operable to output the index information stored in the index information storage unit to outside based on the instruction (paragraph 245, 246).

Thus, the subject-matter of claim 1 is not novel, contrary to Article 33 (2) PCT.

2.2 The subject-matter of claims 14, 15, 16 is disclosed in D1, paragraph 245. It is noted that receiving instructions is implied as computer instructions are necessary to control the output.

3. The present application does not meet the criteria of Article 33(1) PCT, because the subject-matter of claims 2 - 13 does not involve an inventive step in the sense of Article 33(3) PCT.

3.1 The subject-matter of claim 2 differs from D1 in that the index information is encrypted and decrypted again for outputting.

However, applying encryption to a piece of information so that only decryption leads to access to the plain text and thus hiding the content from being readable while encrypted is well-known and is obvious (Article 33 (3) PCT). Given the fact that claim 2 does not specify to whom the decrypted output information is presented, a decryption before outputting the it is obvious, too. Therefore, the subject-matter of claim 2 is not inventive, contrary to Article 33 (3) PCT.

3.2 Claim 3 does not add further inventive subject-matter, as outputting the encrypted information is obvious, too, contrary to Article 33 (3) PCT.

3.3 Claim 5 does not add further inventive subject-matter, contrary to Article 33 (3) PCT.
The subject-matter of claim 5 solves the problem of making the index information readable by executing instructions recorded on a removable medium.
It is obvious that a program containing a set of instructions is needed for outputting the index information, the outputting being defined in claim 1. It is furthermore obvious to that the program is stored on a removable medium.

3.4 Claims 7 and 8 add the notion of a networked instruction receiving unit. Sending instructions over a network to allow for remote execution is obvious (Article 33(3) PCT).

Therefore, the subject-matter of claims 7 and 8 is not inventive, contrary to Article 33 (3) PCT.

3.5 Claims 9 and 10 do not add further inventive subject-matter, contrary to Article 33 (3) PCT.

3.6 The same observations apply, mutatis mutandis, to claims 11 and 12, which are therefore obvious, contrary to Article 33 (3) PCT.

3.7 The subject-matter of claim 13 differs from D1 in that the index information is output only when a user wanting access to the index information is authenticated over a network.
As far as it can be construed (see point 6 of this communication), this solves the problem of revealing the index information only to certain users. Users are therefore authenticated over a network.
However, user authentication protocols are well-known (D2). Assuming that the index information are not to be disclosed to every arbitrary user (see point 6), user authentication

is necessary. Authentication over networks is well-known (see D2).
Therefore, it seems that the subject-matter of claim 13 is obvious, contrary to Article 33 (3) PCT.

4. The application does not meet the requirements of Article 6 PCT, because claim 6 is not clear.

4.1 D1 also discloses unique identification numbers for the medium ('media key') (paragraph 201). Claim 6 defines then that the index information is output only when a disc with a specific media key is inserted. However, given that claim 5 defines that the index information is output always when an instruction is read from the removable medium so as to solve the problem of making the index information accessible with any disc, the technical problem which claim 6 attempts at solving is not clear. Claim 6 defines the index information to be output only in case a special disc is inserted.
Thus, the subject-matter of claim 6 is not clear, contrary to Article 6 PCT.

5. The present application contains at least two independent claims in the same category. The Applicant is informed that claim 11 and claim 13 do not fulfill the requirements for unity of invention (Rule 13.1 PCT).
Considering prior art document D1, claim 11 solves the problem of making the index information accessible and readable.
Claim 13 however, solves the problem of authenticating a user to get permission to view the index information.
Thus, the application contains two inventions which is not allowable under Rule 13.1 - 13.3 PCT.

6. The present application does not conform to Article 5 PCT as the description does not disclose the invention sufficiently clear to be carried out by the skilled person.

6.1 The claims refer to 'index information'. It is understood that it is 'device key index information'.
However, the application remains silent about which information is stored in this index. The nature of the index is not defined. An index in general can comprise a tree structure, hash values, symbols in plain text and more. Accordingly, the uses and requirements for accessing

its content or the content which is indexed are therefore varying. A skilled person could not determine, based on the contents of the description, how an implementation of an 'index' is to be carried out, neither is it defined in the present application. An embodiment of an device key index is also missing.

Therefore, the invention as claimed is not sufficiently disclosed, contrary to Article 5 PCT.